

Introduction

The defendant, Xiaorong You (Dr. You), by and through counsel, pursuant to Rules 32 and 35 of the *Federal Rules of Criminal Procedure*; 18 U.S.C. § 3553(a), (e), (f); 28 U.S.C. § 944(j); *United States v. Booker*, 543 U.S. 220, 125 S. Ct. 738 (2005), *Gall v. United States*, 552 U.S. 38, 128 S. Ct. 586 (2007), *Kimbrough v. United States*, 552 U.S. 85, 128 S. Ct. 558 (2007), *Spears v. United States*, 555 U.S. 261, 129 S. Ct. 840 (2009), and other authorities set forth herein, respectfully submits this Sentencing Memorandum to the Court setting forth the reasons for a downward variance from the sentence recommended by the advisory sentencing guidelines range, which sentence will be “sufficient, but not greater than necessary” to achieve the sentencing purposes of 18 U.S.C. § 3553(a).

As shall be explained in greater detail, Dr. You requests that she receive a sentence of time served, followed by one year of supervised release.

I. Procedural Background

On February 12, 2019, a Grand Jury sitting for the United States District Court, Eastern District of Tennessee, at Greeneville, returned an indictment charging Dr. You with one count of Conspiracy to Commit Theft of Trade Secrets in violation of 18 U.S.C. § 1832(a)(5), one count of Wire Fraud in violation of 18 U.S.C. § 1343, and seven counts of Theft of Trade Secrets in violation of 18 U.S.C. § 1832(a)(3). (Doc. 3, Indictment). The First Superseding Indictment was filed over a year and a half later, on August 4, 2020. The First Superseding Indictment contained additional charges against Dr. You, namely Conspiracy to Commit Economic

Espionage, in violation of 18 U.S.C. § 1831 (a)(5) and Economic Espionage, in violation of 18 U.S.C. § 1831 (a)(3). (Doc. 217, First Superseding Indictment).

A jury trial commenced on April 7, 2021 and concluded on April 21, 2021. At the conclusion, Dr. You was found guilty of Conspiracy to Commit Theft of Trade Secret, seven counts of Possession of Stolen Trade Secrets, Wire Fraud, Conspiracy to Commit Economic Espionage, and Economic Espionage. (Doc. 301, Jury Verdict). Dr. You has been in continuous federal custody since her arrest on February 14, 2019.

II. 18 U.S.C. § 3553(a) Sentencing Factors

Section 3553(a) lists seven factors that a sentencing court must consider. The first factor is a broad command to consider “the nature and circumstances of the offense and the history and characteristics of the defendant.” 18 U.S.C. § 3553(a)(1). The second factor requires the consideration of the general purposes of sentencing, including the need for the sentence imposed—“(A) to reflect the seriousness of the offense, to promote respect for the law, and to provide just punishment for the offense”; “(B) to afford adequate deterrence to criminal conduct”; “(C) to protect the public from further crimes of the defendant”; and “(D) to provide the defendant with needed educational or vocational training, medical care, or other correctional treatment in the most effective manner.” *Id.* § 3553(a)(2). The third factor pertains to “the kinds of sentences available,” *id.* § 3553(a)(3); the fourth, to the Sentencing Guidelines, *id.* § 3553(a)(4); the fifth, to any relevant policy statement issued by the Sentencing Commission, *id.* § 3553(a)(5); the sixth, to “the need to avoid unwarranted sentence disparities,” *id.* § 3553(a)(6); and the seventh, to “the need to provide

restitution to any victim,” *id.* § 3553(a)(7). Preceding this list is the overriding directive to “impose a sentence sufficient, but not greater than necessary,” to achieve the sentencing purposes.

III. Applying the Sentencing Factors

The United States Supreme Court has directed that “a district court should begin all sentencing proceedings by correctly calculating the applicable Guidelines range. As a matter of administration and to secure nationwide consistency, the Guidelines should be the starting point and the initial benchmark.” *Gall v. United States*, 552 U.S. 38, 49, 128 S. Ct. 586 (2007) (citation omitted). However, the Supreme Court has also instructed sentencing courts that the Guidelines are not only just advisory, but that they are not even *presumed* reasonable. *Nelson v. United States*, 555 U.S. 350, 352 (2009) (emphasis added). The district court must consider the arguments of the parties but “without any thumb on the scale favoring a guideline sentence.” *United States v. Sachsenmaier*, 491 F.3d 680, 685 (7th Cir. 2007). Rather, district courts are obliged to consider all of the §3553(a) factors to fashion the appropriate sentence; that is, make an individualized assessment based on the facts presented to arrive at a sentence that is sufficient but not greater than necessary. *See* 18 U.S.C. § 3553(a).

Sentencing judges exercise a wide discretion in the types of evidence they may consider when imposing sentence and highly relevant—if not essential—to the selection of an appropriate sentence is the possession of the fullest information possible concerning the defendant's life and characteristics. *Pepper v. United States*,

562 U.S. 476 (2011). Congress codified this principle at 18 U.S.C. § 3661, which provides that “[n]o limitation shall be placed on the information” a sentencing court may consider “concerning the [defendant's] background, character, and conduct,” and at § 3553(a), which sets forth certain factors that sentencing courts must consider, including “the history and characteristics of the defendant.” § 3553(a)(1). Therefore, sentencing is far from a mechanical operation of the Guidelines. Rather, “it has been uniform and constant in the federal judicial tradition for the sentencing court to consider every convicted person as an individual and every case as a unique study in human failings that sometimes mitigate, sometimes magnify, the crime and the punishment to ensue.” *Rita v. United States*, 551 U.S. 338, 364 (2007) (Stevens, J. and Ginsburg, J. concurring, quoting *Koon v. United States*, 518 U.S. 81, 113 (1996)).

IV. Advisory Sentencing Guidelines

The Presentence Investigation Report for Dr. You was prepared on September 17, 2021. (Doc. 366). The United States Probation Office at that time calculated an advisory guideline range of 324 to 405 months. The guideline range offers no useful advice to the Court because: (1) it is the product of a guideline that was not developed by the Sentencing Commission using an empirical approach based on data about past sentencing practices¹; (2) fails to take any account of Dr. You’s culpability, low risk of recidivism, or collateral punishment; (3) would result in unwarranted disparity as compared with sentences for similarly situated defendants; and (4) is far greater than necessary to promote the goals of sentencing in this case.

¹ *United States v. Corsey*, 723 F.3d 366, 379 (2nd Cir. 2013)

As for the Presentence Investigation Report, there are objections pending that will require a ruling from the Court.

V. Factors that Warrant a Variance

As set forth below, there are numerous factors that warrant a downward variance from the advisory guideline range and are consistent with the mandate of the 18 U.S.C. 3553(a) factors to determine a sentence that is sufficient, but not greater than necessary for Dr. You.

A. Nature and Circumstances of the Offense

The sentencing guideline governing fraud and theft offenses provides for incremental increases in the defendant's offense level based upon the amount of "loss." See USSG § 2B1.1(b)(1). The Guidelines do not require a loss calculation greater than zero. *United States v. Pu*, 814 F.3d 818, 828 (7th Cir. 2016) (citing *United States v. Schneider*, 930 F.2d 555, 559 (7th Cir. 1991)). The commentary accompanying the loss provision defines "loss" as the greater of actual or intended loss. See USSG § 2B1. app. note 3 (A)(i) – (ii). A court must identify the greater figure, the actual or intended loss, and enhance the defendant's offense level accordingly. However, only this comment, not the Guidelines' text itself, provides that a defendant can be sentenced based upon the losses they *intended*. By interpreting "loss" to mean intended loss, it is possible that the commentary "sweeps more broadly than the plain text of the Guideline." *United States v. Kirschner*, 995 F.3d 327,333 (3rd Cir. 2021) (quoting *United States v. Nasir*, 982 F.3d 144, 177 (3rd Cir. 2020) (*en banc*) (Bibas, J., concurring)).

1. There was no “actual loss.”

“Actual loss” is defined as the “reasonably foreseeable pecuniary harm that resulted from the offense.” USSG §2B1.1, app. note 3(A)(i). “Pecuniary harm” is a harm that is monetary or that is otherwise readily measurable in money.” USSG §2B1.1, app. note 3(A)(iii). The Guidelines commentary is clear that “non-economic harm” does not count. It is undisputed that there is no actual loss in this case. Dr. You never shared any of the information that was in her possession. As Dan Leschnik, the Global Technical Manager for Akzo Nobel, testified, there was nothing that Dr. You did or did not do that impacted Akzo Nobel’s business in any way. (Doc. 310, Dan Leschnik Testimony, Page ID # 4249). Therefore, the issue for the Court is the amount of loss that Dr. You intended to cause.

2. There was no “intended loss.”

Dr. You did not intend to cause any loss to the victim companies. There is no evidence in this case of an “intended loss.” An intended loss can only be found if there is sufficient evidence to show that the defendant subjectively and purposefully intended to cause a specific pecuniary harm. In determining the amount of intended loss, the principal question is not the loss that a defendant *could have* caused or the loss that the defendant merely *knew* would result. *United States v. Kirschner*, 995 F.3d at 336; *United States v. Manatau*, 647 F.3d 1048, 1050 (10th Cir. 2011). In fact, it is not even the loss that the defendant could have *possibly and potentially* contemplated. *United States v. Manatau*, 647 F.3d at 1050. As noted by the Third

Circuit Court of Appeals, “it is clear that a district court errs when it simply equates potential loss with intended loss without deeper analysis.” *United States v. Kirschner*, 995 F.3d at 336 (quoting *United States v. Diallo*, 710 F.3d 147, 151 (3rd Cir. 2013)).

Instead, when calculating the intended loss, the relevant inquiry is the amount of loss that the defendant *purposely* sought to inflict. *United States v. Manatau*, 647 F.3d at 1050. In its Amendments to the Guidelines, the U.S. Sentencing Commission expressly adopted the Tenth Circuit’s approach in *Manatau*. Accordingly, the USSG now provides that “intended loss means the pecuniary harm that the defendant purposely sought to inflict.” USSG 2B1.1, app. note 3 (A)(ii). In other words, “intended loss” is limited to economic harm the defendant subjectively desired to cause.

The government *always* bears the burden of proving by a preponderance of the evidence that the facts support a sentencing enhancement for loss amount, and the defendant does not have to prove the negative to avoid the enhanced sentence. *United States v. Kirschner*, 995 F.3d at 336 - 337 (quoting *United States v. Diallo*, 710 F.3d at 151 (emphasis in original)). It is the Government’s position that the loss amount in this case is \$220,855,088², resulting in a twenty-six-point increase in Dr. You’s offense level. The Government submits that the loss amount is the total research and development costs of the trade secret information. In order to arrive at this exorbitant amount, the Government elicited testimony from senior executives for each of the

² See Doc. 392.

companies involved in this case. There was no independent, unbiased testimony as to the value of the information.

Although the cost of the development of the information may be used to determine the amount of loss in a theft of trade secrets case, the government must still prove that the defendant intended that amount of loss. United States Sentencing Commission, *Primer on Loss Calculation Under § 2B1.1* (July 2021)³, at p. 17. The Tenth Circuit Court of Appeals has determined that “[we] do not read the language of the commentary as contradicting the Guideline by substituting cost of development for loss in the calculating the offense level; and the evidence before the district court was that [the victim] did not suffer any business loss from defendant’s acts. . . ‘Loss’ is the key, and the development cost was not adequately tied to any loss actually suffered by [the victim].” *United States. v. Snowden*, 806 F.3d 1030 (10th Cir. 2015).

In *United States v. Pu*, the defendant, a financial analyst, was indicted and pleaded guilty to unlawful possession of a trade secret. *United States v. Pu*, 814 F.3d at 821. The victim companies were two financial firms that engaged in high frequency trading – the rapid buying and selling of publicly traded stocks. *Id.* Both companies developed proprietary computer programs to perform the tasks necessary to execute trades at lightning-fast speeds upon the occurrence of certain market events. *Id.* These programs were valuable trade secrets and each company invested substantial time and money into creating its unique program. *Id.* While working for the victim

3 Available at: https://www.ussc.gov/sites/default/files/pdf/training/primers/2021_Primer_Loss.pdf

companies, the defendant copied files regarding the high frequency trading programs and the source code for the programs and then transferred the files to a personal electronic storage device. *Id.* at 822.

The parties agreed, and the district court found, that there was no actual monetary loss. *Id.* However, relying on the government's loss calculation and the PSR, the district court found that the total development costs of the algorithm or source code was the appropriate metric to value the files that the defendant stole. *Id.* From the evidence, the district court concluded that the files cost the companies in excess of twelve million dollars to develop. *Id.* Therefore, the district court found that the intended loss amount was \$12,294,897. *Id.* After sentencing, the defendant appealed, arguing that the district court's factual findings did not support the conclusion that she intended to cause a loss of approximately \$12 million. *Id.* at 823.

On appeal, the Seventh Circuit determined that the district court's intended loss calculation was clearly erroneous. *Id.* at 824. The court stated that, "[w]e do not doubt that the cost of development of the trade secrets was an easy figure to use when making the intended loss calculation. The guidelines suggest that the cost of development is the metric to use to estimate loss in a trade secrets case." *Id.* at 826. However, the court determined that the key issue was whether the government had proven by a preponderance of the evidence that the defendant intended to cause a loss to the victims that equaled the cost of development. *Id.* The court noted that there was no direct evidence of how much loss the defendant intended the companies to suffer and there was no evidence from which the court could infer how much of a loss

the defendant intended the victims to suffer. *Id.* Without evidence of the defendant's intent to cause the victims to suffer a loss equal to the cost of development, the court concluded that the use of the development cost as the intended loss was not appropriate. *Id.*

The case of *United States v. Xue* involved a very serious offense – the theft of trade secrets from GlaxoSmithKline (“GSK”), a global healthcare and pharmaceutical research company that manufactured products for the benefit of humankind. *United States v. Xue*, Case No. 16-22, 2020 WL 5645765 (E.D. Penn., Sept. 22, 2020). For ten years, defendant Yu Xue was employed as a research scientist for GSK, working on various pharmaceutical products, including products aimed at fighting cancer. *Id.* at *2. While working for the company, Yu Xue stole hundreds of documents containing confidential and trade secret information by emailing them to her personal account and then forwarding the documents to her co-defendants. *Id.* The defendants then created a corporation in the United States as well as two offshore companies in China. *Id.* at *3. Defendants advertised their business as a research and development company specializing in providing products and services to support drug discovery programs at pharmaceutical and biotech companies. *Id.* However, according to the government, in reality, defendants planned to market, sell, and profit from the trade secret information contained in the stolen documents. *Id.*

The defendants agreed to resolve the criminal liability through plea agreements; however, they did not agree to the amount of loss, if any, to GSK under the federal sentencing guidelines. *Id.* The parties submitted wildly varying loss

figures to the court. *Id.* at *1. The government, relying on a theory of “intended loss,” argued that the loss was greater than \$550 million. *Id.* Defendants asserted that the loss amount was zero. *Id.* As noted by the district court, the disparity was the result of competing interpretations of Section 2B1.1(b)(1) of the United States Sentencing Guidelines, its Application Notes, and related case law. *Id.* The government interpreted the Guidelines to permit the court to use the cost of developing the stolen information and its fair market value as the intended loss figure. *Id.* In contrast, defendants interpreted the Guidelines to require, as a prerequisite to any intended loss valuation, that the government prove that they purposefully sought to inflict the loss amount on GSK. *Id.*

The district court held an evidentiary hearing on the loss amount. *Id.* at *4. FBI Special Agent Andrew Haugen testified that he executed search warrants for the defendants’ personal email accounts and located hundreds of documents belonging to GSK, including company presentations that had been rebranded under the defendants’ company name as well as financial projections for the defendants’ companies stating that their new business could be worth as much as \$10 billion. *Id.* He also discovered an email from one defendant soliciting investment in the company. *Id.*

The senior vice president of GSK, Dr. Tarnowski, testified as to the value of the trade secret information, stating that the platforms for three different antibodies were located in the seized documents. *Id.* at *5. These platforms were essentially “recipes” to develop biopharmaceutical products, providing a roadmap from the

beginning of the process all the way through to manufacture, testing, and ultimately, commercialization. *Id.* at *6. Dr. Tarnowski testified that one of the antibody platforms took GSK nearly twenty years to develop. *Id.* at *5. He also testified that it took GSK an average of twelve years and 1,000 employees to develop an antibody, costing up to one billion dollars to do so. *Id.* According to Dr. Tarnowski, the defendants' access to the stolen documents would allow them to save a substantial amount of time and money during the development of antibodies. *Id.* He estimated that GSK had invested "about three to four billion" dollars in all of the stolen information. *Id.* at *6.

Dr. Joseph Villafranca, President of Biopharmaceutical Consultants, LLC, a separate entity from GSK, also testified regarding the scope and value of the stolen documents, opining that the cost of developing a monoclonal antibody was "estimated to be anywhere between one and two billion dollars." *Id.* He also estimated that the value for the finished pharmaceutical product could generate billions of dollars in revenue. *Id.* The government also provided testimony from an independent forensic accountant who opined that the value of the information was more than 550 million dollars. *Id.* at *9.

Following the hearing, the government and the defendants filed memorandums. *Id.* at *12. In its memorandum, the government reaffirmed its position that the value of the stolen information exceeded \$550 million. *Id.* In their memorandum, defendants asserted that the loss should be zero because the government did not prove that GSK suffered any actual or intended losses. *Id.*

Defendants contended that there was no actual loss because there was no evidence that GSK lost any economic opportunities, the ability to use its trade secret and confidential information for research and/or profit, or any market share of any of its products. *Id.* Defendants also asserted that the government did not prove intended loss because it produced no evidence that they intended to harm GSK, which they argued was a necessary element for an intended loss sentencing enhancement. *Id.*

The district court agreed with the defendants, stating that to establish intended loss, the government must show that its proffered figure reflected the loss defendants purposefully intended GSK to suffer. *Id.* The court determined that the government's self-described "best evidence of intended loss" – the defendants' financial statements for their new business – had little bearing on determining intended loss because the statements did not support an inference that the defendants intended to harm GSK; instead, they merely showed the defendants' expectations from the theft. *Id.* at *19. The court also noted that the documents could hardly be classified as "financial statements," as they were PowerPoint presentations – one for the recruitment of employees and another for soliciting investments in the business. *Id.* Although each document contained some reference to financial projections, when considered in the context of each presentation, the financial information was not convincing evidence of a realistic expectation of gain. *Id.* Instead, the financial figures in the documents were meant to attract attention to the defendants' business and were, in essence, advertising brochures for the company. *Id.*

The court determined that the government's best evidence of the defendants' intent to harm GSK was an email sent by one defendant to a third party in which the defendant solicited investment in the business and stated that the defendants had "several developed and validated humanized antibodies targeting a certain important target, which is ready for animal experiments. It's a fast way to produce a 'real' drug in China." However, the court concluded that the email was not indicative of intent to harm; rather it was mere "puffery" to solicit investment. *Id.*

The *Xue* court concluded that the government had not made the necessary showing; instead, the government attempted to prove only the development cost of the stolen information and its fair market value, not the loss the defendants intended GSK to suffer. *Id.* The court also noted that while it could draw reasonable inferences to find such intended harm, the government provided no facts from which such inferences could be reasonably drawn to support their theory on the loss amount. *Id.*

In the present case, the Government has failed to meet its burden to show to this Court that Dr. You intended to cause harm to the victim companies. The Government asserted that Dr. You intended to form a joint venture between Metlac, an Italian can coatings company, and Weihai Jinhong Group, a Chinese company, to operate a can coatings company in China utilizing the trade secret information from the victim companies. Unlike the defendants in the *Xue* and *Pu* cases, all of the information that Dr. You had in her possession was provided to her with full authorization. Dr. You never shared or disclosed this information. The information was not disclosed in the Thousand Talents or Yishi-Yiyi award applications or

presentations. There was no indication in Dr. You's WeChat messages that she provided the trade secret information to any person associated with the Weihai Jinhong Group. Pier Ugo Bocchio, the founder and CEO of Metlac, testified that he never had any discussions with Dr. You regarding any trade secret or confidential information. (Doc. 241-1, Deposition of Pier Ugo Bocchio, p. 30). Mr. Bocchio also testified that Dr. You never provided him with any scientific information or data relating to can lining from any of the victim companies. (Id. at p. 31). Although Mr. Bocchio testified that he and Dr. You had discussions regarding the market in China, he stated that they never had any discussions regarding the specifics of Metlac operating a plant in China. (Id. at p. 29).

Representatives from the Weihai Jinhong Group visited the Metlac plant in Italy, but this visit is not indicative of the formation of a joint venture between the two companies. Ms. Mazzilli testified regarding Dr. You's visit to Metlac's plant with representatives from the Weihai Jinhong Group and the Chinese government. She stated that:

I remember how the meeting was. They arrived, they wanted to talk about China and say how the region, Weihai, was getting improved. Then they made a short visit of our company. We had lunch. And then they had to go to the airport because they were flying to Germany for other business. So it was a typical visit we have at Metlac. The meeting was to know people, a short visit of the plant, lunch and then it was finished.

(Doc. 241-2, Anna Marie Mazzilli Deposition, p. 37).

Ms. Mazzilli testified that it was customary for Metlac to have visitors at their plant, noting that “we have visits so often. You know, we have also hosted competitors. If anybody wants to come and visit us, we are open.” (Id. at p. 31). Ms. Mazzilli considered the visit to be a “one-off” and she and Mr. Bocchio had no further interaction with the representatives of the Chinese company, as she was adamant that there was “no agreement” between Metlac and the Chinese company. (Id. at p. 41; p. 49).

Likewise, the Thousand Talents and Yishi-Yiyi award applications are not indicative of an intent to cause harm to the seven companies. The Government questioned each of the witnesses for the seven companies about a statement in the Thousand Talents application regarding a proposed business plan to build a can coating production company in China, as well as the projected investment, projected production, and expected market share of the project.⁴ The Government asserts that the statements in the Thousand Talents application are indicative of Dr. You’s intent to cause financial harm to the seven companies. However, these statements, like the presentations, projections, and email in the *Xue* case are mere puffery and ambitious speculation regarding a proposed business venture made in hopes of winning the Thousand Talents award. Mr. Liu used these statements and Dr. You’s name to attempt to win the awards and receive funds from the Chinese government. Mr. Liu

⁴ See: Dan Lesnick Testimony, Doc. 309, Page ID # 4230-4231; Jonathan Mason Testimony, Doc. 315, Page ID # 4513-4514; David Bem Testimony, Doc. 314, Page ID # 4410; Thomas R. Mallen Testimony, Doc. 289, Page ID # 3686; Deep Bhattacharya Testimony, Doc. 319, Page ID # 4657-4658.

admitted in WeChat messages that he made false statements without Dr. You's knowledge. (See Government Exhibit 9(a), 04/11/18 at 2:59 message). Based upon the rationale of the *Xue* case, the Government cannot use these statements to infer any intent to harm the companies by Dr. You.

3. The Court should grant Dr. You a downward departure on the loss amount based upon the “economic reality principle.”

Application Note 21(C) to § 2B1.1 provides: “There may be cases in which the offense level determined under this guideline substantially overstates the seriousness of the offense. In such cases, a downward departure may be warranted.” The Sixth Circuit has recognized that where sentencing is based largely or solely on intended loss, a downward departure may be warranted under the “economic reality” principle. *United States v. McBride*, 362 F.3d 360, 375 (6th Cir. 2004); *United States v. Quinn*, 306 Fed. App'x 989, Case No. 07-4093, 2009 WL 113792 (6th Cir. Jan. 16, 2009); *United States v. Murphy*, 815 Fed.App'x 918, 922 (6th Cir. 2020). The underlying theory behind this principle is that “where a defendant devises an ambitious scheme obviously doomed to fail and which causes little or no actual loss, it may be unfair to sentence based on the intended (but highly improbable) loss determination from the § 2B1.1 table.” *United States v. McBride*, 362 F.3d at 375.

Under the economic reality principle, the court should consider “whether there was any reasonable probability that the scheme could have caused the loss the defendant intended.” *Id.* The basis for this inquiry is that the Sentencing Commission is using intended loss as a proxy for the defendant's culpability. See U.S. Sentencing

Guidelines § 2B1.1 cmt. background (“loss serves as a measure of the seriousness of the offense and the defendant’s relative culpability”). *Id.* There are two factors that are relevant in considering whether a downward departure is warranted based upon the economic reality principle. The first is whether there was any reasonable possibility that the scheme could have caused the loss the defendant intended. *United States v. Roen*, 279 F. Supp. 2d 986, 991 (E.D. Wis. 2003). This analysis is consistent with the Commission’s theory of punishment in fraud cases. *Id.* The second factor is whether the intended loss is grossly disproportionate to any actual loss. *Id.* After all, the best evidence of a scheme’s probable success is its actual success. *Id.* For example, in *United States v. Stockheimer*, 157 F.3d 1082 (7th Cir. 1998), the intended loss was \$80 million, yet the defendants’ take was only \$200,000. The court found that this evidence provided a “persuasive basis for the district court consider a downward departure on the basis of the variance between the intended loss and the realistic possibility of such a loss.” *Id.* at 1091.

The Sixth Circuit offered further guidance on the economic reality principle in *United States v. Jordan*, 544 F.3d 656 (6th Cir. 2008). The defendant in the *Jordan* case was convicted of mail fraud and aggravated identity theft. *Id.* at 659. The defendant sent utility customers an unauthorized flyer directing them to begin mailing their payments to a post office box. *Id.* Further investigation revealed that the post office box number listed on the flyer was assigned to a lock box account with a bank wherein the funds received were automatically deposited into the defendant’s account. *Id.* The district court determined that the appropriate loss amount was

\$811,000, the total value of the checks that were actually mailed to the lock box account. *Id.* at 672. However, the defendant argued that because his scheme was discovered and the lock box account was frozen before he could actually withdraw the funds, there was no realistic possibility of a loss of \$811,000. *Id.* The defendant asserted that a downward adjustment was justified because the scheme had no reasonable possibility of success, relying upon the economic reality principle and the court's decision in *United States v. McBride*. *Id.* The Sixth Circuit rejected the defendant's argument, determining that the defendant's actions clearly did not fall to a level of impossibility; in fact, his scheme was working successfully until he was discovered by authorities and the account was frozen. *Id.* Therefore, in order for the economic reality principle to apply, the defendant must show that the plan was obviously doomed to fail or that the losses from the scheme were "highly improbable." *Id.* at 672-673.

It is extremely difficult to enter the can lining market. As Mr. Leschnik testified, "the barrier on the inside is quite high, the science is difficult and the investment is difficult." (Dan Leschnik Testimony, Doc. 310, Page ID # 4258). According to the Government, Dr. You intended to form a joint venture between Metlac, an Italian can coatings company, and Weihai Jinhong Group, a Chinese company, to operate a can coatings company in China. The cooperation of Metlac was crucial to this joint venture. Dan Leschnik, the Global Technical Manager for Akzo Nobel, testified that Metlac, like Akzo Nobel, is a formulator and can coatings company. (Dan Leschnik Testimony, Doc. 309, Page ID # 4098; Page ID # 4224). Mr.

Leschnik noted that Metlac knew the science behind can coatings. (Id. at Page ID # 4225). Mr. Leschnik testified that Weihai Jinhong Group, on the other hand, “could potentially be a raw materials supplier.” (Id.). Deep Bhattacharya, the Global Director for Technology for Eastman Chemical Company, testified that “Metlac is a big formulator, one of the leading formulators in Europe, they’re based in Italy, and they’re one of the leaders in packaging coatings for food.” (Deep Bhattacharya Testimony, Doc. 319, Page ID # 4594).

During the trial, witnesses for the victim companies were asked the following hypothetical question:

If you had access or someone had access to a large chemical manufacturer, a medium-sized formulator like Metlac, had some seed funding of several million dollars, had a laboratory with all the relevant equipment, and then they added in the secret recipes . . . could you be a global competitor in the market for can coatings?

(David Bem Testimony, Doc. 314 at Page ID # 4409; Dan Leschnik Testimony Doc. 309, at Page ID # 4226).

Both Mr. Leschnik and David Bem, the Chief Technology Officer for PPG, responded that assuming this set of facts, a company could become a competitor in the can coatings market. (Dan Leschnik Testimony, Doc. 309, Page ID # 4409; David Bem Testimony, Doc. 314, Page ID # 4409). However, this joint venture was an impossibility from the outset. Pier Ugo Bocchio, the founder and CEO of Metlac, testified that it was “impossible” for Metlac to go to China, and that he had no intention of doing business in China. (Doc. 241-1, Pier Ugo Bocchio Deposition, p. 8; p. 11). Mr. Bocchio was adamant that “I will never, ever do anything at all in China.

. . . especially with – in joint venture” (Id. at p. 26). Anna Marie Mazzilli, the public relations manager for Metlac, confirmed that, “Metlac was not interested in China. Absolutely not.” (Doc. 241-2, Anna Marie Mazzilli Deposition, p. 10; p. 15).

Based upon the evidence presented at trial, it is clear that Metlac was never going to be involved in any joint venture. Without the cooperation of Metlac, Dr. You’s alleged plan was doomed to fail and the loss amount asserted by the Government was highly improbable. Therefore, the Court should grant a downward departure on the intended loss amount because the plan was obviously doomed to fail and the purported losses were highly improbable.

4. Assuming that the Court finds that there was an intended loss, a sentence based on the Guideline loss provisions would be excessive and overstate the seriousness of the offense.

Courts have increasingly recognized that “unless applied with great care,” the loss guidelines “can lead to unreasonable sentences that are inconsistent with what § 3553 requires,” and thus may require a significant downward variance. *United States v. Corsey*, 723 F.3d 366, 379 (2nd Cir. 2013). Strict adherence to the loss guidelines can result in an “utter travesty of justice . . . from the guidelines’ fetish with abstract arithmetic, as well as the harm that guideline calculations can visit on human beings if not cabined by common sense.” *United States v. Adelson*, 441 F. Supp. 2d. 506, 512 (S.D.N.Y. 2006), *aff’d*, 301 F. App’x 93 (2d Cir. 2008). That principle applies with particular force in this case.

The loss guidelines were developed in a way that renders them “fundamentally flawed, especially as loss amounts climb.” *Corsey*, 723 F.3d at 380 (Underhill, J., concurring); *see also United States v. Johnson*, 16-cr-457-1, 2018 WL 1997975, at *3 (E.D.N.Y. Apr. 27, 2018). Specifically, the loss table, unlike certain other sections of the Guidelines, “was not developed by the Sentencing Commission using an empirical approach based on data about past sentencing practices.” *Corsey*, 723 F.3d at 379; *accord Johnson*, 2018 WL 1997975, at *3. As Judge Underhill explained:

The higher the loss amount, the more distorted is the guideline’s advice to sentencing judges. As a well-known sentencing commentator has put it, “For the small class of defendants . . . convicted of fraud offenses associated with very large guidelines loss calculations, the guidelines now are divorced both from the objectives of Section 3553(a) and, frankly, from common sense. Accordingly, the guidelines calculations in such cases are of diminished value to sentencing judges.”

Corsey, 723 F.3d at 380 (quoting Frank O. Bowman, III, *Sentencing High-Loss Corporate Insider Frauds After Booker*, 20 Fed. Sent’g. Rep. 167, 168 (2008)).

Courts throughout the country have found that the loss guidelines result in unreasonable sentencing ranges when there is a substantial loss amount. *See, e.g., id.* (“Where the Sentencing Guidelines provide reasonable guidance, they are of considerable help to any judge in fashioning a sentence that is fair, just, and reasonable. But where, as here, the calculations under the Guidelines have so run amok that they are patently absurd on their face, a Court is forced to place greater reliance on the more general considerations set forth in section 3553(a), as carefully applied to the particular circumstances of the case and of the human being who will bear the consequences.”); *United States v. Gupta*, 904 F. Supp. 2d 349, 351 (S.D.N.Y.

2012), (“by making a Guidelines sentence turn, for all practical purposes, on [loss enhancement], the Sentencing Commission . . . effectively guaranteed that many such sentences would be irrational on their face.”, *aff’d*, 747 F.3d 111 (2d Cir. 2014)); *United States v. Emmenegger*, 329 F. Supp. 2d 416, 427 (S.D.N.Y. 2014) (the Guidelines place “undue” and “excessive weight” on the loss amount); *United States v. Ranum*, 353 F. Supp. 2d 984, 990 (E.D. Wis. 2005) (“One of the primary limitations of the guidelines, particularly in white-collar cases, is their mechanical correlation between loss and offense level.”). *United States v. Adelson*, 441 F.Supp.2d 506, (S.D.N.Y., July 20, 2006) (noting that the Guidelines, because of their arithmetic approach and also in an effort to appear “objective,” tend to place great weight on putatively measurable quantities, such as the weight of drugs or the amount of financial loss, without, however, explaining why it is appropriate to accord such huge weight to such factors).

The loss guidelines are ill-equipped to consider the nature and seriousness of a particular offense, especially a conspiracy to steal trade secrets. As Judge Garaufis explained, the loss guidelines are flawed in part because of “the weakness of the correlation between loss and moral seriousness; the rigidity of the loss amount overriding the diverse reality of complex financial crimes; the lack of any consideration of danger to society; and so on.” *Johnson*, 2018 WL 1997975, at *4. He added:

As far as this court can tell, the Sentencing Commission’s loss-enhancement numbers do not result from any reasoned determination of how the punishment can best fit the crime, nor any approximation of

the moral seriousness of the crime. . . . Given the feeble underpinnings of the loss enhancement, it is particularly galling that this factor is often more or less *solely* responsible for a white-collar offender's Guideline sentence. . . . I agree with Judge Underhill, and refuse to mechanistically impose such an illogical sentence. That this situation continues unabated is a great shame for many offenders sentenced under this Guideline who do not receive a sentence that makes any sense for the actual crime of conviction.

Id. at *3.

Contrary to the Guidelines approach, not all loss amounts should be treated the same in terms of culpability because “not all actual loss is equally serious.” *Corsey*, 723 F.3d at 381 (Underhill, J., concurring). Indeed, “[a] fraud that results in the loss of even a few thousand dollars by an elderly or sick person who, as a result of the loss, becomes unable to afford the necessities of life or medical care is much more serious than a fraud that results in ten or a hundred times that loss by a large corporation able to absorb the financial consequences without a need to close plants, fire employees or even declare the loss as material in public financial reports. Simply put, contrary to the assumption underlying the loss guideline, not all dollars of loss are fungible.” *Id.*

As then-District Judge Lynch explained, “[i]n many cases, . . . the amount stolen is a relatively weak indicator of the moral seriousness of the offense or the need for deterrence.” *United States v. Emmenegger*, 329 F. Supp. 2d at 427. In reality, “the particular amount stolen is not as significant,” and “[w]ere less emphasis placed on the overly-rigid loss table, the identification of different types of fraud or theft offenses of greater or lesser moral culpability or danger to society would perhaps

assume greater significance in assessing the seriousness of different frauds.” *Id.* at 427–28.

Indeed, other courts have urged judges to consider a downward variance in cases where, as here, the loss enhancement dwarfs the base offense level, distorting the resulting Guidelines range and overwhelming the § 3553 factors. For example, in *United States v. Algahaim*, the Second Circuit questioned the wisdom of the loss guidelines for this very reason. *See United States v. Algahaim*, 842 F.3d 796, 800 (2d Cir. 2016). In his opinion, Judge Newman acknowledged that the district court’s loss-related enhancement “complied with the Guidelines Manual,” and that “the Commission had the authority to construct a set of guidelines that used loss amount as the predominant determination of the adjusted offense level for monetary offenses.” *Id.* However, he cautioned that while “[t]his approach, unknown to other sentencing systems, was one the Commission was entitled to take, . . . its unusualness is a circumstance that a sentencing court is entitled to consider.” *Id.* The district court in *Algahaim* had increased one defendant’s base offense level of 6 to an adjusted offense level of 18 because of the loss amount—a “three-fold increase.” *Id.* And it increased a second defendant’s offense level from a base of 6 to an adjusted level of 16, also because of the loss amount. *See id.* Noting the sharp increase due to the loss guidelines, the Second Circuit remanded for resentencing, concluding that “[w]here the Commission has assigned a rather low base offense level to a crime and then increased it significantly by a loss enhancement, that combination of circumstances entitles a sentencing judge to consider a non-Guidelines sentence.” *Id.*

In *United States v. Johnson*, the court departed from a Guideline range of 87–108 months to a 24-month sentence, stating that “because the loss Guideline was not developed by the Sentencing Commission using an empirical approach based on data about past sentencing practices . . . , district judges can and should exercise their discretion when deciding whether or not to follow the sentencing advice that guideline provides.” *United States v. Johnson*, No. 16-CR-457-1, 2018 WL 1997975, at *3 (E.D. N.Y. Apr. 27, 2018).

Here, the loss amount enhancement would increase Dr. You’s offense level even more than they did in *Algahaim*. Dr. You’s base offense level is 7 (yielding a guideline sentence of zero to six months), and the PSR has found that the loss amount enhancement is 24, yielding a guideline level of 31, resulting in a sentence of 108 to 135 months before any other enhancements. This is more than a three-fold increase to the base offense level—for a case that involves zero *actual* loss, as conceded by the Government. Thus, as in *Algahaim*, this Court should meaningfully consider whether a sentence based on the loss amount calculation is appropriate. Given the circumstances of this case, it is not.

B. History and Characteristics of Dr. You

During Dr. You’s childhood in China, her parents instilled in her that she could become anything she dreamed as long as she worked hard and never gave up. Dr. You was the oldest of three daughters and as noted by her younger sister, Xiaoli, Dr. You was the guiding beacon in her life. From an early age, Dr. You learned to take care of

her younger sisters and perform chores around the house. Dr. You was the pride of the family when she was admitted to China's most prestigious university. Thanks to a scholarship from Kent State University, on January 13, 1990, Dr. You was able to achieve her dream to come to the United States. Her husband, Ping Xu, joined her in May, 1990.

When Dr. You arrived in the United States, she had only a suitcase containing her clothing and a little money. She spoke broken English and struggled to understand her professors' lectures. Dr. You worked day and night, and was able to understand and speak English fluently within six months. She completed her Master's degree as a teaching assistant and earned her Ph.D. while working full time. In 1999, Dr. You achieved one of her greatest accomplishments when she was sworn in as an American citizen. Her swearing-in ceremony was pictured in the local newspaper and she purchased many copies to share with her family and friends. After becoming naturalized, she valued the honor and responsibility of being able to vote, casting her ballot every election year. As Ping recalled, in the 2000 presidential election, she stood in line for hours, convincing her five-year-old daughter Linda to accompany her since she was unable to find anyone to watch Linda that evening.

Dr. You is a devoted wife and mother. She and her husband have been married for thirty-three years. Although Dr. You had a demanding career, she made every effort to spend as much time as possible with her family. As Linda recalled, when Dr. You had to move to Massachusetts for work, she would drive eight hours on Friday to spend weekends with her husband and daughter in Delaware, and then drive

another eight hours on Sunday. Dr. You kept this up for several months before Ping and Linda were finally able to move to Massachusetts and the family was reunited. Dr. You also maintained close contact with her sisters and mother. Dr. You's mother suffered from dementia, and for years Dr. You never had a vacation because she used all of her vacation days to travel to China to spend time with her mother. Recently, Dr. You was devastated to learn that her mother passed away.

Dr. You has lived a life unblemished by even a hint of impropriety—much less illegal activity—of any kind. Her offense is completely uncharacteristic when viewed in the context of her entire productive adult life. As indicated in the attached letters from Dr. You's family and former colleagues, criminal activity is completely out of character for Dr. You.

As noted by her daughter, Dr. You is a very thrifty person who saved all the money she could, pouring over coupons in the Sunday paper, purchasing discount products, and wearing well-worn and fraying clothing. However, Dr. You never hesitated to devote her time and resources to help those in need. Dr. You frequently made donations to the United Way, Goodwill, and other charities. When a colleague needed to raise money, Dr. You not only donated money without hesitation, but encouraged everyone in her group to donate. Dr. You's charitable service goes beyond financial contributions. Dr. You is passionate about sharing her love of science with the younger generation in order to help them prepare for their professional careers, volunteering as an undergraduate mentor at the Georgia Institute of Technology from 2014 to 2017. Dr. You goes out of her way to help those in need. On one occasion while

she was out to lunch at a small restaurant with her husband, she heard a waitress state that she was unable to go to a doctor's appointment due to car trouble. Dr. You offered to drive the woman to the doctor.

Dr. You was a dedicated and hardworking employee who loved her work. She excelled in her career. Dr. Daniel James Mikish, Dr. You's former coworker, described Dr. You as one of the best scientists that he encountered during his thirty-year career. Dr. You was passionate about her work and maintained consistent employment, staying with her employers for years rather than moving from job to job. If she was not spending time with her family, she used her free time to study and grow her skills as a scientist. She used her skills to make significant contributions to develop breakthrough technologies in several industries, bringing the best technology to American consumers. She filed forty-two patent applications for the companies that she worked for and is extremely proud of her accomplishments.

Dr. You always shared her knowledge and experience with her colleagues without reservation. Dr. Jianna Wang worked with Dr. You at a research and development center for a large corporation for four years. As noted by Dr. Wang, researchers in this type of work environment often have a sense of peer competition and are unwilling to assist their colleagues. Dr. You was the exception, generously sharing her insights. Dr. You enjoyed helping her colleagues, enthusiastically explaining complicated theory and applications. As Dr. You told Dr. Wang, "When you help others, you help yourself."

Following the ban of BPA, the pressure was on to develop a successful BPA free coating. During her employment with Coca-Cola, Dr. You worked diligently with each of the seven companies, sharing her expertise and knowledge. Coca-Cola management received good feedback from each supplier, acknowledging that Dr. You's contributions helped significantly accelerate their developments. Dan Leschnik sent emails thanking Dr. You for her help. (Dan Leschnik Testimony, Doc. 310, Page ID # 4260). In 2016, Dr. You received an award from Coca-Cola management for her contributions to the BPANI project. Dr. You's pride and passion for her work led her to keep documents from her time with Coca-Cola as mementos of her accomplishments. She understands the gravity of her mistake and as noted above, never intended to divulge this information. Mr. Liu used Dr. You's willingness to help others and share her knowledge against her, attempting to exploit her to win prestigious awards in China. However, Dr. You never provided Mr. Liu with any trade secret information. Dr. You is deeply sorry for her mistakes and had no intention to harm the companies she worked so hard to help during her employment with Coca-Cola.

C. Just Punishment and Adequate Deterrence

A "just" punishment is one that considers the actual offense conduct, viewing the conduct as a unique, individualized case, and not an attempt to fit the conduct into the advisory guideline range. While the certainty of being caught and punished has a deterrent effect, "increases in severity of punishments do not yield significant (if any) marginal deterrent effects." Michael Tonry, *Purposes and Functions of*

Sentencing, 34 Crime & Just. 1, 28 (2006). “Three National Academy of Science panels . . . reached that conclusion, as has every major survey of the evidence.” *Id.*; see also Zvi D. Gabbay, *Exploring the Limits of the Restorative Justice Paradigm: Restorative Justice and White Collar Crime*, 8 Cardozo J. Conflict Resol. 421, 447-48 (2007) (“[C]ertainty of punishment is empirically known to be a far better deterrent than its severity.”).

There is considerable evidence that even relatively short sentences can have a strong deterrent effect on prospective “white collar” offenders. *United States v. Adelson*, 441 F.Supp.2d at 514 (citing Richard Frase, *Punishment Purposes*, 58 Stanford L.Rev. 67, 80 (2005); Elizabeth Szockyj, *Imprisoning White Collar Criminals?*, 23 S. Ill. U. L.J. 485, 492 (1998). As noted by the United States Sentencing Commission, the Sentencing Guidelines were written, in part, to “ensure a short but definite period of confinement for a larger proportion of these ‘white collar’ cases, both to ensure proportionate punishment and to achieve deterrence.” United States Sentencing Commission, *Fifteen Years of Guidelines Sentencing* (2004)⁵, p. 56.

D. Detrimental Effects on Dr. You’s Future

The effect of a sentence on a defendant’s career, unlike socioeconomic status, is not a factor categorically excluded from downward departure analysis. *United States v. Britt*, 27 Fed. App. 862, 865 (9th Cir. 2001) (citing *Koon v. United States*, 518 U.S. 81 (1996)). The notoriety associated with a criminal conviction of this nature for

⁵ Available at: https://www.ussc.gov/sites/default/files/pdf/research-and-publications/research-projects-and-surveys/miscellaneous/15-year-study/15_year_study_full.pdf

a scientist means that Dr. You will never have (or be able to regain) the life and career she had. And that is the case regardless of the sentence ultimately imposed. These consequences, too, are a form of punishment. *See, e.g., United States v. Anderson*, 533 F.3d 623, 633 (8th Cir. 2008) (upholding below-Guidelines sentence in part because district court found that “defendant had suffered atypical punishment such as the loss of his reputation and his company”); *United States v. Malik*, 424 F. App’x 122, 127 (3d Cir. 2011) (affirming a below-Guidelines sentence in part because the defendant “was punished by the reputational harm he suffered as a result of the criminal action”); *United States v. Samaras*, 390 F. Supp. 2d 805, 809 (E.D. Wis. 2005) (imposing below-Guideline sentence in part because, as a consequence of his conviction and sentence, defendant lost a good public-sector job, a factor not considered by the Guidelines); *United States v. Vigil*, 476 F. Supp. 2d 1231, 1315 (D.N.M. 2007) (in considering justness of sentence, “it is important to consider all other forms of punishment [defendant] has already suffered,” including loss of job and damage to his personal and professional reputation); *United States v. Britt*, 27 Fed. App. 862, 865 (9th Cir. 2001) (downward departure was warranted where the defendant’s plans to start a new career as a lawyer were dashed and she was under considerable mental stress).

E. Need for Incarceration

Dr. You has an exceptionally low risk of recidivism. She is 59 years old, has been married for over thirty years, has a doctorate degree, and was employed throughout her adult life. Dr. You is a first offender and has no history of drug or

alcohol abuse. Given her personal characteristics, she has an exceptionally low risk of recidivism. As noted in the United States Sentencing Commission's Report, *Recidivism Among Federal Offenders: A Comprehensive Overview (March 2016)*⁶, criminal history and age are both closely correlated with recidivism rates. *Id.* at p. 5. For those like Dr. You who are educated, have been employed, have been married, are drug free and over 50, the recidivism rate is certainly much lower. *Id.* Finally, offenders like Dr. You with zero criminal history points have a rate of recidivism half that of offenders with one criminal history point. *See* Sent'g Comm'n, *Recidivism and the "First Offender"* (May 2004)⁷, at 13-14.

In imposing the least sentence sufficient for Dr. You, this Court should consider the statistically low risk of recidivism presented by Dr. You's history and characteristics and the fact that she is a first offender. *See, e.g., United States v. Darway*, 255 Fed. Appx. 68, 73 (6th Cir. 2007) (upholding downward variance on basis of defendant's first-offender status); *United States v. Hamilton*, 323 Fed. Appx. 27, 31 (2d Cir. 2009) ("the district court abused its discretion in not taking into account policy considerations with regard to age recidivism not included in the Guidelines"); *United States v. Holt*, 486 F.3d 997, 1004 (7th Cir. 2007) (affirming below-guideline sentence based on defendant's age, which made it unlikely that he would again be involved in a violent crime); *United States v. Urbina*, Case No. 06-CR-336, 2009 WL

6 Available at: https://www.ussc.gov/sites/default/files/pdf/research-and-publications/research-publications/2016/recidivism_overview.pdf

7 Available at: https://www.ussc.gov/sites/default/files/pdf/research-and-publications/research-publications/2004/200405_Recidivism_First_Offender.pdf

565485, *3 (E.D. Wis. Mar. 5, 2009) (considering low risk of recidivism indicated by defendant's lack of criminal record, positive work history, and strong family ties); *United States v. Cabrera*, Case No. 06cr10343-NG, 567 F. Supp. 2d 271, 279 (D. Mass. 2008) (granting variance because defendants "with zero criminal history points are less likely to recidivate than all other offenders"); *Simon v. United States*, Case No. CR-90-216CPS, 361 F. Supp. 2d 35, 48 (E.D.N.Y. 2005) (basing variance in part on defendant's age of 50 upon release because recidivism drops substantially with age); *United States v. Nellum*, Case No. 2:04-CR-30-PS, 2005 WL 300073 at *3 (N.D. Ind. Feb. 3, 2005) (granting variance to 57-year-old defendant because recidivism drops with age); *United States v. Ward*, Crim. No. 92-88-N, 814 F. Supp. 23, 24 (E.D. Va. 1993) (granting departure based on defendant's age as first-time offender since guidelines do not "account for the length of time a particular defendant refrains from criminal conduct" before committing his first offense).

F. Uniformity of Sentencing

One of the fundamental goals of the Sentencing Guidelines is to avoid sentencing disparities, such that similarly situated defendants are treated similarly. *See* 18 U.S.C. § 3553(a)(6). A review of similar theft of trade secrets cases prosecuted around the country makes clear that defendants charged in more serious crimes—involving losses far greater and/or more egregious conduct—are routinely given below-guideline and, very often, non-custodial sentences. For example:

United States v. Li Chen, No. 2:19-cr-163 (2) (S.D. Ohio 2021):

- Defendant, Li Chen, and her husband and co-conspirator, Yu Zhou, worked in separate medical research labs at the Nationwide Children’s Hospital’s Research Institute and conspired to steal at least five trade secrets related to exosome research⁸. Ms. Chen conspired to steal and then monetize one of the trade secrets by creating and selling exosome “isolation kits.” Ms. Chen started a company in China to sell the kits. Ms. Chen also received benefits from the Chinese government, including the State Administration of Foreign Expert Affairs and the National Natural Science Foundation of China. She also applied to multiple Chinese government talent plans.
- Ms. Chen was sentenced to 30 months imprisonment.

United States v. Jun Xie, No. 14-cr-205 (E.D. Wis. 2014):

- Defendant, Jun Xie, was an application engineer for GE Healthcare and wrote source code for MRI technology software.
- After Mr. Xie’s family left for China, he decided to join them, but not before downloading 2.4 million files (almost 1.4 terabytes of data) from GE over a two-month period. Much of the information was the type Mr. Xie was not authorized to use and was not necessary to his work. The files included engineering designs, testing data, business strategy, and source code for magnetic resonance systems. GE stated that it would suffer “irreparable harm” if this information were disclosed.
- Mr. Xie then forwarded the stolen files to his family in China. He planned to join a Chinese company that competed with GE in the MRI field but stated that he never gave the other company the GE information. Mr. Xie was apprehended just days before flying to China.
- Mr. Xie pled to one count of theft of trade secrets and acknowledged that the loss amount was between \$100-200 million.
- Mr. Xie was sentenced to 24 months of probation.

United States v. Shanshan Du, et al. (E.D. Mich. 2013) (convictions and sentences affirmed, *United States v. Shanshan Du, et al.*, No. 13-1778 (6th Cir. 2014):

- A former General Motors (“GM”) engineer, Shanshan Du, and her husband Yu Qin, were convicted of unlawful possession of trade secrets following a month-long trial. Qin was also convicted of wire fraud and obstruction of justice.

⁸ Exosomes play a key role in the research, identification and treatment of a range of medical conditions, including necrotizing enterocolitis (a condition found in premature babies), liver fibrosis, and liver cancer.

- According to the evidence presented at trial, between December 2003 through May 2006, Du provided GM trade secret information relating to hybrid vehicles to her husband for the benefit of their private company, Millennium Technology Inc. (“MTI”). Approximately five days after she was offered a severance agreement by GM, Ms. Du copied more than 16,000 GM files, including trade secret documents to an external computer hard drive used for MTI business. A few months later, Mr. Qin moved forward on a business venture to provide hybrid vehicle technology to Chery Automobile, an automotive manufacturer based in China and a competitor of GM.
- In May 2006, during the execution of a search warrant, the FBI recovered multiple computer devices containing GM trade secret information on several computer and electronic devices located in the defendants’ residence. Shortly after the FBI team left, both defendants drove to a dumpster, where Qin discarded bags containing shredded documents, including GM trade secret documents, that were responsive to federal grand jury subpoenas.
- GM has been involved in the development and production of hybrid vehicles for more than a decade and invested millions of dollars in research and development. GM estimated that the value of the stolen documents was more than \$40 million.
- Shanshan Du was sentenced to 12 months and one day imprisonment. Yu Qin was sentenced to 36 months imprisonment.

United States v. Mattias Tezock, Case No. 3:14-cr-211-M (N.D. Tex. 2016):

- Defendant, Dr. Mattias Tezock, was employed as a chemical engineer at Voltaix, LLC, a multinational corporation. Over approximately 25 years and a great expense, Voltaix developed a specific, industry-leading and exacting secret scientific method to make and purify germane gas, a specialty chemical used in the semiconductor and solar energy industries, to specifications as required by its customers.
- After Voltaix terminated his employment, Dr. Tezock established his own company that manufactured, produced, purified, and sold the specialty gas. Over nearly six years, Dr. Tezock used Voltaix’s trade secrets to benefit himself and harm Voltaix. He also tried to steal business by soliciting one of Voltaix’s biggest customers.
- During subsequent civil litigation, Dr. Tezock took steps to hide his possession of trade secret information by deleting files or manipulating computer evidence.

- Dr. Tezock was sentenced to sixty months of probation. He was not permitted to work in any capacity with germane gas or other specialty chemicals during the probationary term.

United States v. Levandowski, Case No. 3:19-cr-00377-WHA (N.D. Cal. 2020):

- From 2009 to 2016, Defendant, Anthony Levandowski, worked on Google’s self-driving car program, known then as Project Chauffeur. As he was preparing to leave his employment with Google, he downloaded thousands of Project Chauffeur files onto his personal laptop. He also downloaded a variety of files from a corporate Google Drive repository. Among those files was an internal tracking document that contained a variety of confidential details regarding the status of Project Chauffeur. Mr. Levandowski admitted he downloaded this file with the intent to use it to benefit himself and Uber Technologies, Inc. He admitted that a reasonable estimate of the loss attributable to his theft was up to \$1,500,000.
- Prosecutors described Levandowski’s overall conduct as “brazen and shocking,” arguing that Levandowski “did the exact thing that Congress criminalized: he took a trade secret on his way out the door.”
- In sentencing Mr. Levandowski, the Honorable William H. Alsup, District Court Judge, observed “this is the biggest trade secret crime I have ever seen. This was not small. This was massive in scale.”
- Mr. Levandowski was sentenced to eighteen months of incarceration followed by a three-year period of supervised release, to begin when the risks from the COVID-19 pandemic subsided.⁹

United States v. Hongjin Tan, Case No. 19-CR-9-GKF (N.D. Okla.):

- Mr. Tan was a scientist for a U.S. petroleum company, assigned to work in a group within the company with the goal of developing next generation battery technologies for stationary energy storage. He stole hundreds of files containing information regarding the manufacture of a “research and development downstream energy product” worth more than \$1 billion.
- The day after copying the files, he turned in his resignation from the company. He told his supervisor he was returning to China to care for his aging parents and didn’t have a job offer, but according to prosecutors, he was negotiating with a few battery companies in China.

⁹ On January 20, 2021, President Donald Trump issued a full pardon for Mr. Levandowski.

- A hiring agreement written in Chinese from another organization was later found on Mr. Tan's work laptop. The letter, dated Oct. 15, 2018, offered him a director position in Xiamen, China
- Mr. Tan pleaded guilty to theft of a trade secret, unauthorized transmission of a trade secret, and unauthorized possession of a trade secret.
- Mr. Tan was sentenced to 24 months imprisonment.

United States v. Shan Shi, No. 17-cr-110 (D.D.C. 2019):

- Defendant Shan Shi conspired with others to steal trade secrets from a Houston-based company, relating to syntactic foam, a strong lightweight material with commercial and military uses that is essential for deep-sea oil and gas drilling.
- Dr. Shi created a company to produce syntactic foam and related products and related products. He staffed the company with former Telleborg employees who still had access to Trelleborg's proprietary manufacturing data.
- As the business was getting off the ground, it created a business plan explaining the market opportunity that it saw, stating that the company's goal was to become "the fifth company in the world that can provide [a] wide range and qualified buoyancy products for [the] offshore oil & gas industry."
- Dr. Shi was found guilty following a jury trial, and the district court determined that the loss amount was \$1,050,000.
- Dr. Shi was sentenced to sixteen months in prison.

United States v. Yang, No. 11-cr-458 (N.D. Ill. 2011):

- Defendant was a software engineer for the Chicago Mercantile Exchange ("CME") and downloaded over 20,000 files over a six-month period from CME's computers.
- Defendant then tried to form a new company in China with two Chinese business partners that would increase trade volume on China's chemical trading exchange.

- Defendant pled guilty to two counts of stealing CME's source code and selling it to a Chinese exchange.
- The government and probation submitted a loss amount of \$23 million, and an offense level of 25.
- The court rejected the loss calculation, found a Guideline range of 30-37 months, but imposed a sentence of 48 months of probation.

United States v. O'Rourke, No. 17-cr-495 (N.D. Ill. 2017):

- Defendant worked for a chemical manufacturing company, Dura-Bar, for 31 years before accepting an executive-level job at a Chinese chemical company.
- Two days before resigning, defendant downloaded dozens of Dura-Bar's files without authorization. These files included lab reports and other trade secrets.
- A jury found defendant guilty on seven counts of theft of trade secrets.
- Despite founding a loss amount of \$333,500 and an offense level of 22, the court found that the Guidelines were "more severe than what's necessary," and "driven in large part by loss calculation..."
- The defendant received a sentence of a year and a day imprisonment and 36 months of supervised release.

United States v. Zhang, No. 10-cr-827 (N.D. Cal. 2010):

- As a senior software engineer and director of software development at SiRF Tech., defendant downloaded over 100,000 files with millions of lines of source code valued at \$1.7 million.
- Defendant intended to use this code at a company he founded prior to accepting a position at SiRF.
- Defendant never disclosed to his employer during his seven-year tenure with SiRF that he owned a competing company. Defendant also recruited co-workers from SiRF to join his company.
- Defendant received a sentence of 60 months of probation and a \$20,000 fine.

United States v. Grande, No. 3:07-cr-19 (D. Conn 2007):

- Defendant worked for Duracell, where he stole trade secrets via downloads and email, which he then sent to two competitors, who returned the information to Duracell.

- The defendant's goal was to harm Duracell executives by reducing their bonuses, and he was found to have intended a loss of \$3 million.
- The Court sentenced the defendant to 60 months of probation, a \$7,500 fine, and 200 hours of community service.

United States v. Hanjuan Jin, No. 12-3013 (N.D. Ill.), sentence aff'd, 733 F.3d 718 (7th Cir. 2013):

- The defendant, Hanjuan Jin, a naturalized U.S. citizen born in China, and a former software engineer for Motorola Inc., was secretly working for a Chinese company that developed telecommunications technology for the Chinese military.
- Motorola had invested hundreds of millions of dollars in its iDEN push-to-talk technology, which, in turn, provided the company with hundreds of millions of dollars in revenue.
- According to the evidence, Jin began working for Motorola in 1998 and took a medical leave of absence in February 2006. While on sick leave, Jin pursued employment in China with a Chinese telecommunications company that developed products for the Chinese military. Between November 2006 and February 2007, Jin returned to China and worked for the Chinese company on projects for the Chinese military. During this same period of time, she was given classified Chinese military documents to review in order to better assist with the Chinese military projects. After receiving these documents, Jin agreed to review the documents and provide assistance.
- In February 2007, Jin returned to the United States from China. Two days after she became a naturalized U.S. citizen, Jin reserved a one-way ticket to China. The following day, Jin advised Motorola that she was ready to end her medical leave and return to work at Motorola, without advising that she planned to return to China to work for the Chinese company.
- Jin returned to Motorola, purportedly to resume full-time work, and was given no assignments by her supervisor. Jin accessed more than 200 technical documents belonging to Motorola on its secure internal computer network. Jin returned to Motorola at night and downloaded additional documents. At approximately 12:15 a.m. on February 27, 2007, Jin was recorded twice leaving a Motorola building with hard copy documents and other materials.
- During the day on February 27, 2007, Jin sent an e-mail to her manager in which she appeared to volunteer for a layoff at Motorola. At about 10 p.m., she returned to Motorola's offices and downloaded numerous additional technical documents. Jin was later recorded leaving a Motorola building with what appeared to be a laptop computer bag.

- As she attempted to depart from O'Hare bound for China, authorities seized numerous materials, some of which were marked confidential and proprietary belonging to Motorola. Some of the documents provided a detailed description of how Motorola provides a specific communication feature that Motorola incorporates into its telecommunications products sold throughout the world. At the same time, authorities recovered multiple classified Chinese military documents written in the Chinese language that described certain telecommunication projects for the Chinese military. Many of these documents were marked "secret" by the Chinese military.
- Prosecutors argued that Jin's work for a Chinese telecommunications company and its Chinese military projects "demonstrates a lack of loyalty to the United States as well as Motorola. It is clear that [Jin] knew that she would be dedicating her education, talents, and experience to the betterment of the Chinese military. To better serve this effort, she opted to steal technology that she had access to at Motorola."
- Jin was convicted of three counts of theft of trade secrets following a five-day bench trial in November 2011. In a 77-page opinion, Judge Castillo found her not guilty of three counts of economic espionage for the benefit of the People's Republic of China and its military. At sentencing, however, Judge Castillo found by a preponderance of the evidence that Jin "was willing to betray her naturalized country."
- In imposing the sentence, U.S. District Judge Ruben Castillo stated that Jin conducted a "purposeful raid to steal technology."
- Jin received a sentence of forty-eight months imprisonment. The Seventh Circuit Court of Appeals, noting that Jin's conduct was "egregious," affirmed the conviction and sentence.

United States v. Groves, Case No. 5:12-cr-00043 (W.D. Ky. 2015):

- The defendant downloaded 31,000 files from his former employer to an external hard drive, some possessing trade secrets, and took them to a new job with a competitor.
- The defendant did not inform the FBI about the hard drive during interviews.
- The court found that the defendant intended to cause a monetary loss to his former employer by using the confidential documents.
- The defendant was sentenced to 24 months of probation and weekend incarceration for 25 consecutive weekends.

United States v. Wenfeng Lu, Case No. 8:12-cr-00277 (C.D. Cal. 2019):

- The defendant, Wenfeng Lu stole trade secrets belonging to two former employers, both of which develop and manufacture medical devices used to treat cardiac and vascular ailments.
- While he was working for the companies, Lu travelled to the People's Republic of China (PRC) multiple times – sometimes soon after stealing the trade secrets from his employers. Lu had obtained financing and was preparing to open a company in the PRC that would manufacture devices used to treat vascular problems and would use technology he had stolen from his American employers. Lu was arrested as he prepared to board a plane to the PRC in November 2012.
- “In furtherance of his business, defendant [Lu] applied to the PRC government for funding designed to attract technological talent from places such as the United States, and was selected to receive approximately \$2 million RMB (about \$328,000 USD) and free rent for a period of three years in a laboratory in a technology park located in Nanjing Province in the PRC,” prosecutors wrote in a sentencing memorandum filed with the court. “The money and laboratory space was part of a program sponsored by the PRC government to encourage scientists of Chinese descent to return to the PRC with intellectual property to develop biomedical technology in the PRC.”
- Mr. Lu received a sentence of twenty-seven months.

United States v. Clark Alan Roberts, No. 08-cr-175 (E.D. Tenn. 2008):

- Two engineers with Wyko Tire Technology, located in Tennessee, were charged with conspiring to steal trade secrets from the Goodyear Tire and Rubber Company and scheming to defraud Goodyear of confidential and proprietary information.
- According to the indictment, the defendants traveled to a Goodyear tire manufacturing facility. After making material misrepresentations to Goodyear employees concerning the purpose of their visit, the defendants used a cell phone to surreptitiously photograph proprietary off the road tire manufacturing equipment. The defendants later emailed the unauthorized photographs, which contained valuable trade secret information, to employees at a Wyko subsidiary located in England, who then used the photographs to complete a similar piece of tire manufacturing machinery.
- Following a jury trial, the defendants were convicted of seven counts of stealing trade secrets and three counts of engaging in wire fraud.

- Despite a Guideline range of 37–46 months imprisonment, the district court sentenced each defendant to four months of home confinement, 150 hours of community service, and four years of probation.
- Defendant appealed his conviction to the Sixth Circuit Court of Appeals. The Sixth Circuit affirmed his conviction, but remanded the case for resentencing based on the sentencing court’s failure to establish the loss attributable to the offense conduct. *U.S. v. Howley*, 707 F.3d 575 (6th Cir. 2013). A resentencing hearing was held on June 3, 2013. [Doc. 213]. After considering all of the evidence, the court resentenced the defendant to four years of probation as to each count, all to be served concurrently, and required the defendant to perform 150 hours of community service. Upon motion of the defendant, [Doc. 220], his probation was terminated early.

By comparison, Dr. You’s conduct was far less egregious. Unlike the majority of these defendants whose criminal conduct involved direct harm to the victim, Dr. You neither intended nor caused any harm to the seven companies. Given that Dr. You never disclosed the documents in her possession to any person, it is clear that Dr. You’s conduct bears little resemblance to and is far less serious than the typical trade secrets case. And even in the “typical” trade secret case, courts around the country have typically departed far below the sentencing guidelines. This Court should not hesitate to do the same.

Considering that the loss amount is zero and there was no obstruction of justice, Dr. You’s total offense level is a 15. Dr. You has no criminal history, rendering her Criminal History Level I. Dr. You’s resulting Guideline range is 18 – 24 months. Dr. You has been in continuous federal custody since February 14, 2019. She has been incarcerated for the entirety of the COVID-19 pandemic. According to 18 U.S.C. § 3585(b), Dr. You should receive credit for the time that she has spent in federal

custody, given that her time in detention is the result of the instant offenses. As a result, Dr. You should receive a sentence of time served.

VI. Bureau of Prisons Designation

In the event that this Court imposes a sentence of imprisonment, Dr. You requests that she be designated to FCI Aliceville, or, in the alternative, FCI Marianna.

VII. Conclusion

As the Supreme Court observed years before *Booker* and its progeny, when application of the sentencing guidelines remained mandatory:

It has been uniform and constant in the federal judicial tradition for the sentencing judge to consider every convicted person as an individual and every case as a unique study in the human failings that sometimes mitigate, sometimes magnify, the crime and the punishment to ensue.

Koon v. United States, 518 U.S. 81, 112 (1996).

Here, that unique study of human failings demonstrates that a sentence of time served followed by one year of supervised release should be imposed.

Respectfully submitted this 7th day of February, 2022.

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